

ABSTRACT

DIGITAL TUNER

A digital tuner has an input tuning range with lower and upper limit frequencies. An up converter converts an input signal to an intermediate frequency signal whose frequency is higher than the upper frequency limit of the input range. A downconverter is a zero intermediate frequency quadrature converter which converts the intermediate frequency signal to in-phase and quadrature baseband signals. The upconverter has a local oscillator fundamental frequency which is greater than the upper frequency limit of the input tuning range.